



# Customer Release Note

## AirPrime HL6528RDx Firmware 1.11.0



**SIERRA**  
WIRELESS®

4118711  
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## Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless modem are used in a normal manner with a well-constructed network, the Sierra Wireless modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless modem, or for failure of the Sierra Wireless modem to transmit or receive such data.

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*Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. Sierra Wireless modems may be used at this time.*

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Consult our website for up-to-date product descriptions, documentation, application notes, firmware upgrades, troubleshooting tips, and press releases: [www.sierrawireless.com](http://www.sierrawireless.com)

# Document History

Version	Date	Updates
1.0	January 27, 2016	Creation
1.1	February 11, 2016	Updated: <ul style="list-style-type: none"><li>• 6.1 Validated Corrections/Improvements</li><li>• 9 Restrictions and Additional Information</li></ul>



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# 1. Introduction

## 1.1. Document Scope

The scope of this document is the Firmware 1.11.0 firmware release description of the AirPrime HL6528RDx embedded module.

The HL6528RDx includes the following variants:

- HL6528RD
- HL6528RD-G
- HL6528RD-2.8V
- HL6528RD-G2.8V

## 1.2. Document Audience

This release note may be distributed to all direct and indirect customers.

## 1.3. New Features/Enhancements

No new features have been introduced in this release.



## 2. Abbreviations and Definitions

Table 1. Abbreviations and Definitions

Abbreviation/Acronym	Definitions
ADC	Analog Digital Converter
GPIO	General Purpose Input Output
PCM	Pulse Code Modulation
PWM	Pulse Width Modulation
SIM	Subscriber Identity Module
UART	Universal Asynchronous Receiver Transmitter
USB	Universal Serial Bus
NVM	Non-Volatile Memory



## 3. Related Documentation

- [1] AirPrime HL6528RDx Product Technical Specification  
Reference: 4117701
- [2] AirPrime HL6528RDx AT Commands Interface Guide  
Reference: 4117743

## >> 4. Compatibility

Table 2. Hardware Compatibility

AirPrime Compatibility List
HL6528RDx DV2.1 or newer

Table 3. Software Compatibility

Component	Version
Firmware	1.5.0 or newer

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**Warning:** *Firmware upgrade from earlier versions would result in the module being blocked.*

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## 5. Software Release Description

### 5.1. Release Identification

Table 4. HL6528RDx Firmware Release Information

Component	Revision
Identification	RHL6528RD.1.11.0.11CV10F30.201601081919.m6261a_1
Date of generation	2016/01/08
IMEI SV	01
Stack version	MAUI_11C_W14_18_SP_V10_F30
USB driver version	1.1032.1

### 5.2. Software Tools Versions

Table 5. Software Tools

Software Tools Name	Version
Flash tool	v5.1504.00

### 5.3. Release Files and Download Processes

Table 6. Release Files

Download Option	File
All in one download executable	RHL6528RD.1.11.0.11CV10F30.201601081919.m6261a_1.exe



## 6. Software Changes Description

### 6.1. Validated Corrections/Improvements

ID	Description
ANO87562	[HL6528RD][GCF] TC 27.22.4.5.1-1 The last terminal response for ABORT is missing
ANO87542	[REG][HL6528RD][IPR] - AT port locks up if existing baud was sent with AT+IPR=0
ANO87566	[HL6528RD] ATH return ERROR after auto-answer
ANO87504	[HL6528RD][CSIM] - Wrong response for Write command
ANO87297	[HL6528RD][GCF][SIM-2.1.7] Phonebook - MSISDN saved on SIM/USIM
ANO87260	[HL6528RD][AT&V][+GCAP] +FCLASS configuration should be removed from AT&V, +GCAP command answers
ANO87210	[HL6528RD][WIP] Change the max socket number to 25
DEV87428	[HL6528RD][STK] Update PLAY TONE in automatic mode due to patch v7
DEV87491	[HL6528RD] Integrate patch_1601060_V10_F30_network_lock_fix
ANO87312	[HL6528RD][NS][+COPS] : "+CME ERROR: 3" returned when set up AT+COPS=
DEV87290	[HL6528RD] FW build scripts for automation
ANO86529	[HL6528RD][MECS][KBCAP] - Wrong value for <pinout_config> and <microboot_version> parameters
ANO87335	[HL6528RD][Audio] Problem with audio in MO and MT voice calls
ANO87268	[HL6528RD][CLCK] - "PF" and "PC" values should be removed following Legacy behavior and the "SC" is wrong order.
ANO87267	[HL6528RD][CLCK] - The +CME ERROR: 3 should be returned when entering invalid syntax and Extra space should be removed.
DEV87328	[HL6528RD] Fix the no OK response after ATH the data call
ANO86091	[HL6528RD][V25Ter] Wrong response of IFC: extra space, wrong error code, strange character
ANO87227	[REG][HL6528RD][V25ter][AT&K] OK is returned instead of +CME ERROR: 3 when module enters invalid syntax of &K command
ANO87247	[REG][HL6528RD][CC][+CSTA]- Wrong response is returned when check syntax of +CSTA command
ANO87222	[REG][HL6528RD][SMS][CPMS] Wrong response when select prefer message storage
ANO86685	[HL6528RD][CMEC] - Wrong value list of supported <key> for Test command
ANO84023	[HL6528RD][ATD] Wrong response of ATD command
ANO87310	[HL6528RD][GCF] No busy tone when calling an occupied phone
ANO87307	[HL6528RD][GCF] PUK2 Handling - Unblocking of PIN2 - Successful (Menu)
ANO85842	[HL6528RD][AvMS][WDSS] OK is returned instead of +CME ERROR: 651 when initiation of a connection to the server with unplug antenna
ANO87230	[REG][HL6528RD][SMS/CSDH] Extra 'c' character in received sms when CSDH=1
ANO86372	[HL6528RD][SMS/CNMI] No sms indication on message class 0 when <mt> = 1 or <mt> = 3
ANO86490	[HL6528RD][GPRS][CGREG] The registered, roaming status is returned with unplug the antenna

## 6.2. Interface Changes

Some AT commands have been updated in this firmware release.

Refer to document [2] AirPrime HL6528RDx AT Commands Interface Guide for more information.

## 7. Troubleshooting

Please contact Sierra Wireless customer service for support and debugging information.

## 8. Certification Description

This firmware has obtained GCF/PTCRB type approval.



## 9. Restrictions and Additional Information

The following table lists out important known issues.

Table 7. Restrictions/Known Issues

Issue ID	Description
ANO86403	+CNMI command settings are not persistent over modem reset or power cycle
ANO86487	+CSDH command setting is not persistent over modem reset or power cycle
ANO86488	+CSMP command settings are not persistent over modem reset and power cycle
ANO82336	SMS message content is presented in HEX format when the data coding scheme indicates that 8-bit or UCS2 data is used, even if the message format has been set to Text mode using the +CMGF command
ANO85563	+CIEV URC are only available for +CIND service indicator
ANO83882	UART CTS signal toggles when the device is in sleep mode
ANO88255	No ring tone is heard from the modem audio path during an incoming call

Note that the following features will be available in future releases:

- Audio (tuning and configuration)
- DTMF (decoding and duration)
- Phonebook
- AVMS system monitoring
- X-modem
- Cell scan and network scan
- Jamming detection
- Antenna detection
- Temperature monitoring
- Bearer Independent Protocol (BIP)
- Network Personalization
- GNSS and A-GPS
- TCP, FTP and HTTP AT commands
- HTTPS AT commands
- POP3 and SMTP AT commands
- CMUX Multiplexer protocol (full basic option)



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